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Docket No.: 20516 US (C38435/111694)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of :  
Tatsuo HOSHINO, *et al.*

Serial No.: 09/727,855

Filed: December 1, 2000

For: **PROCESS FOR THE MANUFACTURE  
OF CAROTENOIDS AND  
BIOLOGICALLY USEFUL  
MATERIALS THEREOF**

)  
) Examiner: Not yet assigned

)  
) Art Unit: 1645

)  
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New York, New York  
August 14, 2001

**SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Commissioner of Patents  
Washington, DC 20231

Sir:

Applicants wish to make of record the following documents (clean copies and  
Form PTO-1449 are enclosed).

**OTHER DOCUMENTS**

- C8 An. "Photosensitization of the Yeast *Phaffia rhodozyma* at a Low Temperature for Screening Carotenoid Hyperproducing Mutants." Applied Biochemistry and Biotechnology, Vol. 66, pp. 263-268 (1997)
- C9 Shaish, *et al.*, "Are active oxygen species involved in induction of B-carotene in *Dunaliella bardawil*?" Planta, Vol. 190, No. 3, pp. 363-368 (1993)
- C10 Schroeder, *et al.*, "Singlet Oxygen and Peroxyl Radicals Regulate Carotenoid Biosynthesis in *Phaffia rhodozyma*." J. Biol. Chem., Vol. 270, No. 31, pp. 18374-18379 (1995)
- C11 Cortez, *et al.*, "Molecular Cloning and Expression Analysis of the *Rhodobacter capsulatus* *sodB* Gene, Encoding an Iron Superoxide Dismutase." Journal of Bacteriology, Vol. 180, No. 20, pp. 5413-5420 (1998)

- C12 Jakopitsch, *et al.*, "Catalase-Peroxidase from the Cyanobacterium *Synechocystis* PCC 6803: Cloning, Overexpression in *Escherichia coli*, and Kinetic Characterization," Biol. Chem., Vol. 380, pp. 1087-1096 (1999)
- C13 Forkl, *et al.*, "Molecular Cloning, sequence analysis and expression of the gene for catalase-peroxide (cpeA) from the photosynthetic bacterium *Rhodobacter capsulatus* B10," Eur. J. Biochem., Vol. 214, pp. 251-258 (1993)
- C14 Chung, *et al.*, "Duplicate genes for Fe-containing superoxide dismutase in *Streptomyces coelicolor* A3(2)," Gene, Vol. 231, pp. 87-93 (1999)

These documents were cited in a Search Report dated May 23, 2001 (copy enclosed) which issued in a foreign counterpart application. Copies of the Shroeder, *et al.* and the Martinez, *et al.* references cited in the Search Report are not being submitted herewith because each was already submitted with the Information Disclosure Statement filed on March 1, 2001 or the Supplemental Information Disclosure Statement filed on April 2, 2001.

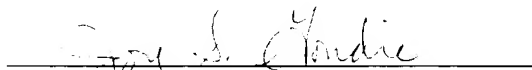
Applicants request that these documents be considered by the Examiner before issuance of a first office action on the merits and made of record in this file. The Examiner is also asked to initial and return a copy of the enclosed PTO-1449 form to evidence such consideration.

This Second Supplemental Information Disclosure Statement is being filed in accordance with the following provisions:

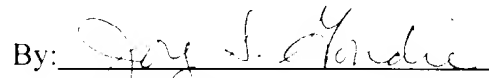
- [x] 37 CFR § 1.97(b)(3) To the best of the undersigned's knowledge, before the mailing date of a first Office Action on the merits. No fee is required.

If it is determined that a fee is required as set forth in 37 CFR § 1.17(p) or 1.17(i)(1), or if any additional fees are required, please charge such fee (or credit any overpayment) to Deposit Account No. 02-4467. A duplicate copy of this document is enclosed.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner of Patents, Washington, D.C. 20231, on August 14, 2001.

  
Joy S. Goudie, Reg. No. 48,146

Respectfully submitted.

By:   
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Form PTO-1449 (Rev. ) <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE AUG 17 2001	ATTY. DOCKET NO. 20516 US (C38435/111694)	SERIAL NO. 09/727,855
	APPLICANT Tatsuo HOSHINO, <i>et al.</i>		
	FILING DATE December 1, 2000	GROUP 1645	

## U.S. PATENT DOCUMENTS

Examiner Initial	Cite No.	U.S. Patent Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

C8	An. "Photosensitization of the Yeast <i>Phaffia rhodozyma</i> at a Low Temperature for Screening Carotenoid Hyperproducing Mutants." <u>Applied Biochemistry and Biotechnology</u> , Vol. 66, pp. 263-268 (1997)
C9	Shaish, <i>et al.</i> , "Are active oxygen species involved in induction of B-carotene in <i>Dunaliella bardawil</i> ?" <u>Planta</u> , Vol. 190, No. 3, pp. 363-368 (1993)
C10	Schroeder, <i>et al.</i> , "Singlet Oxygen and Peroxyl Radicals Regulate Carotenoid Biosynthesis in <i>Phaffia rhodozyma</i> ." <u>J. Biol. Chem.</u> , Vol. 270, No. 31, pp. 18374-18379 (1995)
C11	Cortez, <i>et al.</i> , "Molecular Cloning and Expression Analysis of the <i>Rhodobacter capsulatus</i> <i>sodB</i> Gene, Encoding an Iron Superoxide Dismutase." <u>Journal of Bacteriology</u> , Vol. 180, No. 20, pp. 5413-5420 (1998)
C12	Jakopitsch, <i>et al.</i> , "Catalase-Peroxidase from the Cyanobacterium <i>Synechocystis</i> PCC 6803: Cloning, Overexpression in <i>Escherichia coli</i> , and Kinetic Characterization." <u>Biol. Chem.</u> , Vol. 380, pp. 1087-1096 (1999)
C13	Forkl, <i>et al.</i> , "Molecular Cloning, sequence analysis and expression of the gene for catalase-peroxide ( <i>cpeA</i> ) from the photosynthetic bacterium <i>Rhodobacter capsulatus</i> B10." <u>Eur. J. Biochem.</u> , Vol. 214, pp. 251-258 (1993)
C14	Chung, <i>et al.</i> , "Duplicate genes for Fe-containing superoxide dismutase in <i>Streptomyces coelicolor</i> A3(2)." <u>Gene</u> , Vol. 231, pp. 87-93 (1999)
EXAMINER	
DATE CONSIDERED	
Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	